



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/649,272	08/28/2000	Peter C. Simpson	18062L-000110	6757

20350 7590 08/14/2003

TOWNSEND AND TOWNSEND AND CREW, LLP
TWO EMBARCADERO CENTER
EIGHTH FLOOR
SAN FRANCISCO, CA 94111-3834

EXAMINER

BROWN, JENNINE M

ART UNIT PAPER NUMBER

1755

DATE MAILED: 08/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/649,272

Applicant(s)

SIMPSON ET AL.

Examiner

Jennine M. Brown

Art Unit

1755

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4, 5, 7 and 9-27 is/are pending in the application.
- 4a) Of the above claim(s) 18-27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 4, 5, 7, 9-17 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other:

DETAILED ACTION

Election/Restrictions

Newly submitted claims 11, 18-27 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: claims as originally submitted were not drawn to a device or method having multiplexing of at least one cathode and/or anode reservoir and/or waste reservoir.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 18-27 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 112

Examiner has entered Applicants amendment, which obviates Examiners previous rejection, therefore the rejection has been withdrawn.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 5, 7 and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 5 recites the limitation "at least one of the cathode

reservoirs". There is insufficient antecedent basis for this limitation in the claim. Claim 4 recites "each separation channel connected with a cathode reservoir at one end" and claim 5 is dependent upon claim 4. Claim 7 recites the limitation "wherein at least one of the waste reservoirs". There is insufficient antecedent basis for this limitation in the claim. Claim 4 recites "at the other end to a waste reservoir" and claim 7 is dependent upon claim 4. Claim 9 recites the limitation "between the cathode reservoirs and the common anode reservoir". There is insufficient antecedent basis for this limitation in the claim. Earlier in the same claim it recites "each separation channel connected with a cathode reservoir at one end".

Claims 4, 5, 7, 9-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The term "common" when referring to the anode reservoir is unclear. Examiner assumes that the term common refers to multiple cathodes and a single cathode and will interpret this language as such.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 4, 5, 7 and 9-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Knapp, et al. (US 6444461 B1).

Knapp, et al. teach a multiplexed microfluidic device having multiple separation channels and methods for separation using the multiplexed microfluidic device having multiple separation channels.

Knapp, et al. show in Figures 9, 10 and 11, a capillary array electrophoresis plate having an array of separation channels (904-932; 1004-1010; 1106-1118), each connected with a cathode and anode reservoir at opposing ends (938, 940, 944, 946; 1016, 1018, 1020, 1022, 1026, 1028; 1176-1188) and reservoirs (944, 946; 1016, 1018, 1026, 1028, 1020, 1022; 1148-1150, 1152-1154, 1156-1158, 1160-1162, 1164-1166, 1168-1170, 1172-1174). Methods of operation of the multiplexed microfluidic device having multiple separation channels are also taught (col. 50, l. 19 – col. 52, l. 7).

Claims 4, 5 and 7 are rejected under 35 U.S.C. 102(e) as being anticipated by Liu (US 6533914 B1).

Liu teaches a multiplexed microfluidic device having multiple separation channels. Figure 1 illustrates an array of sample reservoirs, cathode reservoirs and waste reservoirs, which make up the array of injectors where each injector is composed of one sample reservoir, one cathode reservoir and one waste reservoir. The injector is then connected to the separation chip in a parallel array where the anode resides on the separation chip and is in common with each parallel capillary in the array (col. 3, l. 31-42, 63-65; col. 4, l. 31-63; col. 5, l. 28-39, 41-46; col. 6, l. 1-11, 54-58; col. 6, l. 65 - col. 7, l. 8; col. 8, l. 16-20, 46-51; col. 9, l. 18-49).

Claims 4, 5, 7 and 9-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Wiktorowicz, et al. (US 6214191 B1).

Wiktorowicz, et al. teach a multiplexed microfluidic device having multiple separation channels and methods for separation using the multiplexed microfluidic device having multiple separation channels as illustrated in Figures 3 and 4.

Wiktorowicz, et al. teach multidimensional electrophoresis of samples where they are electrophoresed in a first then second dimension (col. 2, l. 64 – col. 3, l. 4; col. 15, l. 38-46). The device is a plate that has sample loading, electrophoresis region and one or more fluid passageways one of which is for removing fluid (i.e. waste) (col. 3, l. 5-28; col. 5, l. 45-61; col. 6, l. 61-62; col. 7, l. 1-4) having a defined region for electrophoresis using electrodes (col. 41-67; col. 15, l. 10-19) and a method of using the apparatus (col. 4, l. 3-25 col. 12, l. 14-27).

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 4, 5, 7 and 10 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-2, 4-8, 10-13, 15-17, 19-22, 24, 27, 29, 39 of U.S. Patent No. 6,143,152. Although the conflicting claims are not identical, they are not patentably distinct from each other because both claim a multiplexed capillary array

Art Unit: 1755

electrophoresis plate having a plurality of separation channels having a plurality of anodes and cathodes, injection channels, waste channels that are collinear with one another. The claims of this application appear to be encompassed by the claims of US 6143152.

Response to Arguments

Applicant's arguments with respect to claims 4, 5 and 7-14 have been considered but are moot in view of the new grounds of rejection.

Since Applicants have not submitted a terminal disclaimer, the rejection stands as set forth previously.

Conclusion

Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennine M. Brown whose telephone number is (703) 305-0435. The examiner can normally be reached on M-F 8:00 AM - 4:30 PM.

Art Unit: 1755

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Bell can be reached on (703) 308-3823. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 879-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

jmb
August 6, 2003


Mark L. Bell
Supervisory Patent Examiner
Technology Center 1700